Palo Verde College

COURSE OUTLINE

Palo Verde College
One College Drive, Blythe, CA 92225
(760) 921-5500

Latest Revision: 3/5/07

Board Approval: 5/22/07

1. **Course Information. Course Initiator: JOE BOIRE**

Subject Area and Course Number: **NBE 059**	Course Title: **BASIC GAS TUNGSTEN ARC WELDING (TIG)®**		
New Course ☐ Revised ☒ Updated ☒	Static ID **C05995**	TOP Code **095650**	Credit Status Request **Noncredit**
Classification Code **I=Occupational Education**	SAM Code **D=Possibly occupational**		Course prior to college level **Y=Not applicable**
Noncredit category **I=Short-term vocational**	Meets a unique need: Yes ☒ No ☐	Course duplicated: Yes ☐ No ☒	Demand/Enrollment Potential: Yes ☒ No ☐
Transfer request **C=Non-transferable**	Articulation request: UC ☐ CSU ☐ CSU-GE ☐ IGETC ☐ CAN ☐		

2. **Some or all aspects of this course may be delivered in a Distance Education mode: Yes ☐ No ☒**
   If checked yes, all questions pertaining to Distance Education must be answered.

3. **This course has laboratory or clinic/field hours: Yes ☒ No ☐**
   If checked yes, this outline must include a list of laboratory or clinic/field activities or topics.

4. **This course has prerequisites, co-requisites, or advisories: Yes ☐ No ☒**
   If checked yes, please complete a Prerequisite Justification Form .

5. **Curriculum Committee Approval Date: 4/19/07**

6. **After Curriculum Committee approval, the following is to be completed by the Office of Instruction:**

TRANSFER APPROVAL STATUS	ARTICULATION APPROVAL STATUS					
Approval Pending		**Not Requested**	**Date of Submission**	**Approval Pending**	**Approval Denied**	**Date Approved**
	UC	☐		☐	☐	
	CSU	☐		☐	☐	
	CSU-GE	☐		☐	☐	
	IGETC	☐		☐	☐	
	CAN	☐		☐	☐	

CATALOG DESCRIPTION:

This entry-level course covers the theory and practices of Gas Tungsten Arc Welding in all positions. Students will set up and use TIG Equipment to produce quality welds. All safety features will be applied. This course is repeatable.

UNITS:

FACE TO FACE: Hours Per Week: Lecture: 10 Laboratory: 20 Clinic/Field:
DISTANCE EDUCATION:

ENTRY LEVEL SKILLS, PRE-REQUISITES, CO-REQUISITES AND ADVISORIES:

None

OBJECTIVES and LEARNING OUTCOMES:
Upon successful completion of the course the student will be able to:

1. Demonstrate the correct way to set up gas Tungsten arc welding equipment.
2. Demonstrate the safe operation of TIG welding equipment.
3. Describe the advantages of using different shielding gases.
4. Explain the purpose of the various Tungsten and shapes.
5. Demonstrate welding procedures for plates (all positions).
6. Explain minor repairs and how to troubleshoot machines.

COURSE OUTLINE AND SCOPE:

1. Outline of Topics or Content:

A. Types of Tungsten and uses.
B. TIG equipment set-up.
C. TIG equipment operation.
D. Safety practices and procedures.
E. Reshaping Tungsten Electrodes.
F. Types of filler rod and uses.
G. Welding plate test.

2. If a course contains laboratory or clinic/field hours, list activities or topics:

Safety rules and theory will be discussed and mastered prior to actual welding practice.

3. Examples of Reading Assignments:

See listed textbook information, instructor handouts.

4. Examples of Writing Assignments:

Complete work sheet to include the following: project design, material list and labor.

5. Appropriate Assignments to be completed outside of class:

n/a

6. Appropriate Assignments that demonstrate critical thinking:

N/A

7. Other Assignments:

N/A

8. Indicate any assignments that are unique to the Distance Education mode of delivery:

N/A

METHOD OF EVALUATION—FACE TO FACE:

Student participation and attendance
Welding test plate examination

METHOD OF EVALUATION—DISTANCE EDUCATION:

N/A

METHOD OF INSTRUCTION—FACE TO FACE:

Lecture, visual aids, welding demonstrations, welding book assignments, welding videos and handouts.

METHOD OF INSTRUCTION—DISTANCE EDUCATION:

N/A

REPRESENTATIVE TEXTBOOKS, AND OTHER READING AND STUDY MATERIALS:
This section shall include author(s), title, and current publication date of all representative materials.

Textbook: Modern Welding; Althouse, Turnquist, Bowditch, Bowditch, and Bowoditch
Workbook: Modern Welding; Bowditch, Bowditch, and Bowoditch

SIGNATURES:

COURSE INITIATOR: _____ **DATE:**_____

LIBRARY:_____ **DATE:**_____

CHAIR OF CURRICULUM COMMITTEE: _____ **DATE:**_____

SUPERINTENDENT/PRESIDENT: _____ **DATE:**_____